requirement of funds for the power sector in the Ninth Plan period of 1997—2002 has been assessed by the Working Group for power constituted by the Planning Commission.

(b) The total requirement for the Central and State Sector has been worked out at Rs. 264167 crores. The details are as under:—

	(Rs. Crores)
(i) Generation (including nuclear project) - Public Sector only.	117205
(ii) Transmission & Distribuion	113970
(iii) Renovation & Modernisation	10045
(iv) Rural Electrification	20400
(v) Others	2547
TOTAL	Rs. 264167 Crs.

It was assessed that Rs. 86845 crores would be required for Private Sector generation projects.

(c) No, Sir.

(d) Does not arise.

Transmission and Distribution Losses in State Electricity Boards

263. MISS SAROJ KHAPARDE: Will the Minister of POWER be pleased to state:

(a) the details of transmission and distribution losses incurred by the S.E.Bs., State-wise;

(b) the major factors responsible for these T & D losses; and

(c) the measures taken by Government to reduce T & D losses in the country?

THE MINISTER OF POWER (SHRI P.R. KUMARAMANGALAM): (a) Details regarding Transmission & Distribution Losses incurred by the State Electricity Boards/Electricity Departments (EDs) in given in the enclosed statement.

(b) The major factors responsible for high T&D losses are:

1. Weak and inadequate sub-transmission & distribution system. Inadequate investment in this sector over the years has led to the present system inadequacies.
2. Overloading of systems and poor voltage profile due to improper load management.
3. Low quality of construction and inadquate maintenance of equipment.
4. Over extended rural electrification programmes undertaken in the country resulting in long lines and extension of distribution network without strengthening the back-up transmission and sub-transmission system.
5. Unmetered supply to agricutural pumps and small domestic connections to weaker sections of the society in some States, resulting in the inability to assess consumption and losses in these sectors.
6. Pilferage and theft of energy.
7. Defective meters, meter reading errors, tampering of meters etc.

(c) Power distribution falls within the purview of State Government and it is the responsiblility of SEBs/EDs to take necessary steps for reduction of these losses. The utilities have been advised to improve their T&D system through short and long term measures, install capacitors for reactive compensation, carry out Energy audit to pinpoint system elements responsible for high losses. "Guidelines for reduction of T&D losses" and "Guidelines for conducting Energy audits" were issued to SEBs/EDs wherein the utilities were advised to conduct pilot studies to evolve optimum parameters for loading of different sizes of conductors, length of lines, distribution transformation capacities. Theft of electricity has been made a cognizable offence from August, 1986 under the amended provi-

sions of Section 39 of Indian Electricity Act, 1910. An incentive scheme has also been introduced by the Ministry of Power to motivate the SEBs/EDs to incourage reductioin in T&D losses in their areas of supply.

Statement

Percentage Transformation, Transmission & Distribution losses (Including commercial losses such as pilferage etc) in State Elecy. Boards/Electricity Depts.

Region/State Elecy. Boards/Elecy. Depts.	1992-93	1993-94	1994-95	1995-96	1996-96
NORTHERN REGION					
1. Haryana	26.78	25.00	30.00	32.39	31.59
2. Himachal Pradesh	19.51	18.31	10.21	16.09	17.89
3. Jammu & Kashmir	48.28	45.69	48.74	47.52	NA
4. Punjab	19.24	19.37	16.70	18.49	18.00
5. Rajasthan	22.74	25.00	24.78	29.27	24.93
6. Uttar Pradesh	24.43	24.08	21.69	21.84	24.80
7. Chandigarh	26.21	27.27	28.44	33.72	15.24
8. D.E.S.U.	23.56	31.79	34.56	48.57	49.00
WESTERN REGION					
1. Gujarat	22.03	20.34	20.02	20.08	18.22
2. Madhya Pradesh	21.35	20.26	19.61	17.84	19.26
3. Maharashtra	17.83	16.22	16.33	16.95	15.29
4. D & N Haveli	17.98	12.64	11.35	9.31	10.03
5. Goa	21.85	24.50	26.87	26.06	24.58
6. Daman & Diu	15.67	22.34	16.30	12.80	10.80
SOUTHERN REGION					
1. Andhra Pradesh	19.88	19.91	17.95	19.34	33.60
2. Karnataka	19.55	19.55	19.41	19.06	18.48
3. Kerala	21.95	20.00	20.05	21.12	19.96
4. Tamil Nadu	17.50	17.18	17.11	16.19	17.00
5. Lakshadweep Isls.	18.72	16.99	17.84	17.23	15Ä10
6. Pondicherry	15.31	15.80	15.00	16.54	14.01
EASTERN REGION					
1. Bihar	22.00	20.35	19.76	15.91	21.55
2. Orissa (Gidco)	25.25	22.43	23.03	24.17	49.47
3. Sikkim	22.55	22.60	21.22	16.47	NA
4. West Bengal	24.87	20.82	21.51	19.26	20.08
5. A & N Isls.	23.62	23.71	22.38	19.25	19.15
NORTH-EASTERN REGION					
1. Assam	21.41	22.44	24.18	26.91	24.93
2. Manipur	22.35	23.92	25.30	24.85	21.50
3. Meghalaya	11.79	18.03	18.47	12.55	19.32
4. Nagaland	27.26	33.45	36.12	35.17	NA

5. Tripura	30.64	30.53	31.96	30.66	29.50
6. Arunachal Pradesh	32.32	42.04	45.30	37.12	NA
7. Mizoram	29.04	31.89	29.76	25.18	30.00
All India (Utilities)	21.80	21.41	21.13	22.27	23.41

Note: NA - Not Available

Augmentation of Power Generation in Gujarat

264. SHRI PRAFULL GORADIA: Will the Minister of POWER be pleased to state:

(a) whether there is a persistent power cirisis in Gujarat;

(b) if so, the total demand and supply of power in the State at present;

(c) the average annual deficiency of power in the State; and

(d) the measures taken by Government for augmenting power generation in the State and the year by which the State is expected to become self sufficient in power generation?

THE MINISTER OF POWER (SHRI P.R. KUMARAMANGALAM): (a) and (b) The details of actual power supply position during October, 1998 and April to Oct., 1988 are as under:—

	Energy (MU)			Pear (MW)	
	Oct.,98	Apr.- Oct., 98		Oct.,98	Apr.-Oct.,98
Requirement	3265	25249	Peak Deamand	5918	6452
Availability	3200	24065	Peak met	5036	5622
Shortage	65	1184	Shortage	882	830
Percentage Shortage	2.0%	4.7%	Percentage Shortage	14.9%	12.9%

(c) There has been significant improvement in power supply position (energy wise) in Gujarat in comparision to shortage persisting during the years 1996-97 and 1997-98 as per details given below:—

	1996-97	1997-98	April 98 to Oct.,98
Requirement	38225	40622	25249
Availability	35111	38489	24065
Shortage	1184	2133	3114
Percentage Shortage	8.1%	5.3%	4.7%

(d) The following measures are being taken for augmenting power generation in Gujarat: